Center

Mean (average) -

sum → $\sum x_i$ ← an observation / data pt.

$\frac{\sum x_i}{n}$ ← n ← total # of observations

Median -

don't have to be possible pieces of data

- middle #
- when data is in order

Ex1:

2 3 3 6 7 8 9 10 11 12 13

Ex2:

5

1 2 3 4 5 5 6 6 7 8 9

average

Spread / splits data in ½

with median...

Quartiles: - split data into ¼'s

Q1 = 1st quartile - median of lower ½ of data

Q3 = 3rd quartile - median of upper ½ of data

Ex 1: Q1 Q2 M Q3

2 3 3 6 7 7 9 10 11 12 13

lower ½ upper ½

Ex: 2

Q1 M=5 Q3

3.5 6.5

1 3 3 4 5 5 5 6 6 7 8 9

middle 50%

Min, Q1, Med, Q3, Max

Used for?

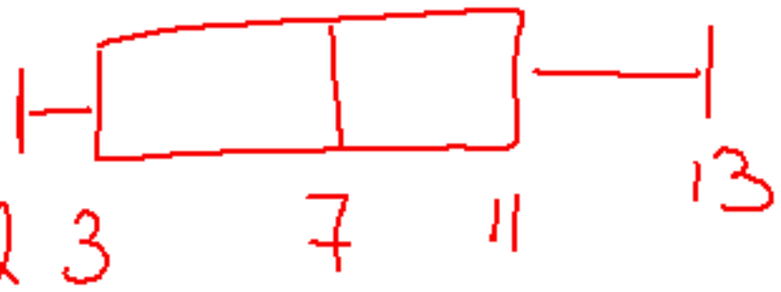
- Create boxplots

Boxplots

- distribution
- quantitative data
- 5 # summary

- horiz. or vert.

Ex 1:



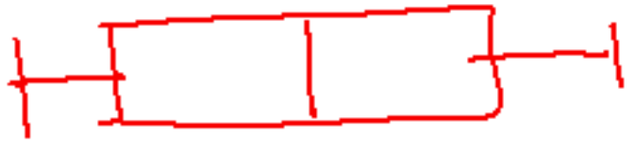
Ex: 2

Side-by-side:

Used for comparison of 2 sets of data

(2)

(1)



2 7 13